## ABSTRACT

A motor driving apparatus and a driving method thereof, and a mobile terminal in which a terminal voltage value of a terminal is detected at a terminal voltage detection unit, and is held in a holding circuit. A difference between the terminal voltage value detected this time and the terminal voltage value detected last time and held in the holding circuit is calculated in a difference circuit, and the calculated difference voltage value is compared with a reference voltage value 10 determining a rated frequency in a comparator. A synchronizing reference voltage value of a reference voltage source is controlled by a control circuit on the basis of each comparison result in the comparators and a frequency of a synchronizing reference signal specified 15 as a basic operation time unit at the time of synchronous driving is corrected so that a stable synchronous operation condition can be obtained before a rotor of a brushless motor steps out from a synchronous operation.